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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,719	08/01/2001	Rowan Nigel Naylor	29206-00036	3645

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EXAMINER

HARKNESS, CHARLES A

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,719

Applicant(s)

NAYLOR, ROWAN NIGEL

Examiner

Charles A Harkness

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of Applicant's amendment to the title, the objection to the specification has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fu et al., U.S. Patent Number 5,226,127 (herein referred to as Fu).

3. Referring to claims 1 and 5 Fu has taught a processing arrangement for a computer, the arrangement comprising:

first processor means which is operable to process instructions from a first set of instructions (Fu column 6 lines 37-49); and

second processor means which is operable to process instructions from a second set of instructions, which second set of instructions is a subset of the first set of instructions (Fu column 6 lines 37-49, figure 1), the second processor means being arranged to receive instructions and to process the received instructions without reference to the first processor means, when the received instructions are selected from the second set of instructions (Fu column 6 line 36-column 8 line 5, figure 1), characterized in that the first processor means includes a plurality of registers, and the second processor means is operable to access a predetermined, non-zero, selection of the said registers (Fu column 3 lines 39-49; the floating

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point co-processor will affect the same registers that are affected by the general purpose processor, figure 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fu in view of Kawahara et al., U.S. Patent Number 5,614,847 (herein referred to as Kawahara).

5. Referring to claims 2 and 6 Fu has not taught an arrangement as claimed in claim 1, wherein the first processor means has active and inactive states of operation, and wherein the second processor means is operable to process instructions when the first processor means is in the inactive state.

6. Kawahara has taught wherein the first processor means has active and inactive states of operation, and wherein the second processor means is operable to process instructions when the first processor means is in the inactive state (Kawahara column 31 lines 25-38). Allowing the coprocessor to have active and inactive states would have been obvious to one of ordinary skill in the art at the time of the invention. By having the first processor, or coprocessor, in a sleep state, less power is dissipated so that the system uses less total power (Kawahara column 31 lines 25-38). This is especially useful for systems running off of batteries in a lap top computer, for example. Therefore, it would have been obvious to one of ordinary skill in the art at the time of

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the invention to allow the coprocessor to have active and inactive states so that when the coprocessor is idle and the general purpose processor is busy, less power is consumed by the system.

7. Referring to claim 3 the combination of Fu and Kawahara has taught an arrangement as claimed in claim 2, wherein the second processor means is operable to cause the first processor means to change to the active state from the inactive state, when the received instructions cannot be processed by the second processor means (Kawahara column 31 lines 25-38).

8. Referring to claim 4 the combination of Fu and Kawahara has taught a processing arrangement as claimed in any one of claims 1 to 3, composing a plurality of such second processor means for processing respective subsets of the first instruction set (Kawahara column 30 lines 17-34).

Response to Arguments

9. Applicant's arguments filed 11/19/04 have been fully considered but they are considered moot in view of the new grounds of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

MacGregor et al., U.S. Patent Number 5,021,991, has taught a system using a coprocessor and a coprocessor instruction format.

Fu et al., U.S. Patent Number 5,226,127, has taught using a coprocessor and the host and coprocessor executing subsets of the whole instruction sets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A Harkness whose telephone number is 703-305-7579. The examiner can normally be reached on 8Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on 703-305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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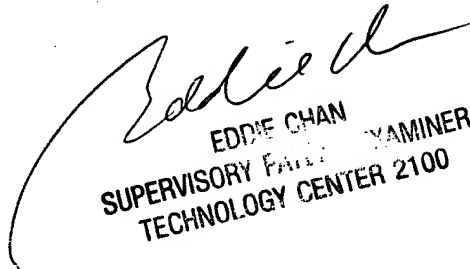
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles A Harkness

Patent Examiner

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February 3, 2005


EDDIE CHAN
SUPERVISORY Patent Examiner
TECHNOLOGY CENTER 2100